Special Issue

Advancements in Plant Polyploidy: From Methods to Mechanisms

Message from the Guest Editors

Polyploidy, the multiplication of an entire genome resulting in an increased number of chromosomes, plays a crucial role in plant evolution. Understanding the methods and mechanisms involved in plant polyploidy is of utmost importance for advancing our knowledge in this field. This Special Issue aims to provide a comprehensive overview of research contributions and reviews that cover a range of topics, including techniques for plant polyploidy induction, the role of polyploidy in plant evolution, genetic and epigenetic regulation of polyploidy, as well as the potential benefits and challenges associated with polyploid plants. These topics include, but are not limited to:

- Innovative experimental techniques for polyploidy induction and detection;
- Molecular mechanisms underlying polyploid formation, maintenance, and genome stability;
- Transcriptomic, epigenomic, and proteomic studies elucidating gene expression regulation in response to polyploidy;
- Evolutionary consequences and ecological impacts of polyploidization events;
- Polyploidy in plant improvement, including hybrid vigor, stress tolerance, and enhanced productivity.

Guest Editors

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

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